

In the Sequence Listing:

In response to the Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures, Applicants have enclosed herewith a paper copy of a Substitute Sequence Listing, a Substitute Computer Readable Form Copy thereof, and a Statement Verifying Identity of Above Copies. The following has been amended in the Substitute Sequence Listing:

- A) New SEQ ID NOS:75 and 76 have been added.
- B) Lines <140> and <141> have been US 10/080,980.
- C) New lines <220> to <223> were added to SEQ ID NO:6 to append a 'MISC_FEATURE' to define the unknown amino in position 15.
- D) New lines <220> to <223> were added to SEQ ID NO:8 to append a 'MISC_FEATURE' to define the unknown nucleotides at positions 146 to 167, 488 to 546, and 670 to 688.

In the Claims:

Cancel claims 1-19.

Add the following new claims:

20. (New) An isolated nucleic acid molecule comprising a polynucleotide sequence selected from the group consisting of:

(a) an isolated polynucleotide encoding a polypeptide corresponding to amino acids 1 to 325 of SEQ ID NO:2 including the start codon;

(b) an isolated polynucleotide encoding a polypeptide corresponding to amino acids 2 to 325 of SEQ ID NO:2 minus the start codon;

(c) an isolated polynucleotide encoding a polypeptide corresponding to amino acids 34 to 134 of SEQ ID NO:2;

(d) an isolated polynucleotide encoding the K+betaM6 polypeptide as encoded by the cDNA clone contained in ATCC Deposit No: PTA-3161;

(e) an isolated polynucleotide encoding at least 50 contiguous amino acids of SEQ ID NO:2;

(f) an isolated polynucleotide which represents the complimentary sequence (antisense) of (a), (b), (c), (d), (e), or fragment thereof; and

(g) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(f), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

21. (New) The isolated nucleic acid molecule of claim 20, wherein said polynucleotide is (a).
22. (New) The isolated nucleic acid molecule of claim 21, wherein said polynucleotide comprises nucleotides 121 to 1095 of SEQ ID NO:1.
23. (New) The isolated nucleic acid molecule of claim 20, wherein said polynucleotide is (b).
24. (New) The isolated nucleic acid molecule of claim 23, wherein said polynucleotide comprises nucleotides 124 to 1095 of SEQ ID NO:1.
25. (New) The isolated nucleic acid molecule of claim 20, wherein said polynucleotide is (c).
26. (New) The isolated nucleic acid molecule of claim 25, wherein said polynucleotide comprises nucleotides 220 to 522 of SEQ ID NO:1.
27. (New) The isolated nucleic acid molecule of claim 20, wherein said polynucleotide is (d).
28. (New) The isolated nucleic acid molecule of claim 20, wherein said polynucleotide is (e).
29. (New) The isolated nucleic acid molecule of claim 20, wherein said polynucleotide is (f).
30. (New) The isolated nucleic acid molecule of claim 20, wherein said polynucleotide is (g).
31. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 20.
32. (New) A recombinant host cell comprising the vector sequences of claim 31.
33. (New) A method of making an isolated polypeptide comprising:
(a) culturing the recombinant host cell of claim 32 under conditions such that said polypeptide is expressed; and
(b) recovering said polypeptide.
34. (New) A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:
(a) determining the presence or absence of a mutation in the polynucleotide of claim 20; and
(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.
35. (New) The isolated polynucleotide of claim 20 wherein said nucleic acid sequence further comprises a heterologous nucleic acid sequence.